Table 2.7. Ion formation

| Table 2.7. Ion formation |                 |                               |                                 |                                                                     |                  |
|--------------------------|-----------------|-------------------------------|---------------------------------|---------------------------------------------------------------------|------------------|
| Element                  | Group<br>Number | Protons<br>in neutral<br>atom | Electrons<br>in neutral<br>atom | Number of electrons that need to be gained or lost to achieve octet | Ion formed       |
| Li                       | 1               |                               |                                 |                                                                     |                  |
| K                        |                 | 19                            |                                 |                                                                     |                  |
| Rb                       |                 |                               | 37                              |                                                                     |                  |
| Ве                       |                 |                               |                                 | 2 lost                                                              | Be <sup>2+</sup> |
| Ca                       |                 |                               |                                 |                                                                     | Ca <sup>2+</sup> |
| Ва                       |                 |                               |                                 |                                                                     |                  |
| S                        |                 |                               |                                 |                                                                     |                  |
| Se                       |                 |                               |                                 |                                                                     |                  |
| Po                       |                 |                               |                                 |                                                                     |                  |
| CI                       |                 | 17                            | 17                              |                                                                     |                  |
| Br                       |                 |                               |                                 | 1 gained                                                            | 1 <sup>-</sup>   |
| I                        |                 |                               |                                 |                                                                     |                  |